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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/177,837	10/23/1998	MICHAEL BURNETT	00167/318001	3644

7590

02/12/2003

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EXAMINER

WHIPKEY, JASON T

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/177,837	BURNETT ET AL.	
	Examiner	Art Unit	
	Jason T. Whipkey	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed December 11, 2002, have been fully considered but they are not persuasive.

In the amendment filed by the applicant, the applicant argues:

The Examiner rejected claims 1-4, and 6 as anticipated by the Tamura patent (U.S. 5,959,670). We submit, however, that Tamura does not describe or suggest image size detection circuitry, much less image size detection circuitry for determining an actual image area within a total image area of the image sensor, and generating a control signal, based on the actual image area, for controlling the electronic shutter, as recited in claims 1 and 7. (page 2, lines 5-9)

The crux of this matter is the meaning of the word *determining* on line 5 of claim

1. The examiner is interpreting the definition of *determine* to be "to bring about as a result : regulate", while, based on the applicant's arguments, the intended interpretation may be "to find out or come to a decision about by investigation, reasoning, or calculation." *Merriam-Webster's Collegiate Dictionary, Tenth Edition* 315 (2001).

In interpreting claim 1 using the former meaning, it is clear that the system control circuit 117 in the Tamura patent (Figure 6) does "bring about as a result" or "regulate" the "actual image area within a total image area":

The system control circuit 117 also includes an electronic-zoom magnification control part 117b for *varying* a read-out area of the image plane by *controlling* the scanning timing pulse generator 105 in accordance with the external manipulation of a zoom key (not shown) and *effecting* intermittent reading from the image pickup element 104. (column 14, lines 3-8; emphasis added)

In this case, the “electrical signals received from the electronic camera” are the image signals from the zoom key. System control circuit 117, in acting as the “image size detection circuitry” determines — or regulates — the “actual image area” read out from the “total image area”, or image plane. Information indicative of this area is supplied by electronic-zoom magnification control part 117b (the “control signal”), which causes adjustment of the exposure (column 14, lines 14-20), wherein said adjustment includes control of the electronic shutter (column 13, lines 33-40).

These components comprise “image size detection circuitry” since system control circuit 117 detects, via the zoom key and electronic-zoom magnification control part 117b, the image size command input by the user and performs the functions enumerated in the claim.

The same reasoning may be applied to support the examiner’s rejections of claims 7 and 13.

The examiner is aware of the applicant’s intended interpretation of the above claims. However, the examiner asserts that the language used in the claims is broad enough to allow for other interpretations of the meaning of the claims.

Drawings

2. The proposed drawing correction filed on December 11, 2002, has been approved. A proper drawing correction or corrected drawings are required in reply to the

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Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informality: Line 27 of page 14 indicates that part 86 is a comparator, while Figure 4 indicates that part 86 is an integrator.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 6, 13-15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Tamura.

Regarding claim 1, Tamura discloses a camera with an electronic shutter contained in image pickup element 104 (column 4, lines 38-40). The "image size detection circuitry" in system control circuit 117 receives an image signal from the image pickup element 104 via automatic gain control circuit 107, light measuring circuit 112, integrating circuit 113, and comparing circuit 114. System control circuit 117 determines which of the predefined areas shown in figures 7, 8, and 9 will be used in the outputted image and how their exposures will be determined (column 18, lines 51-59). Each of figures 7, 8, and 9 show the total image area captured with unused portions grayed. Electronic shutter control part 117d then controls the electronic shutter in the image pickup element.

Regarding claim 2, figures 7, 8, and 9 show a plurality of predefined shutter response areas, each with different portions shaded. Zoom magnification control part 117b controls the image sensor based on the selected areas (column 14, lines 3-13).

Regarding claim 3, Tamura discloses an exposure control data computing part 117a, which acts as a processor. Since the exposure/zoom areas are predetermined (column 24, lines 27-67), it is inherent that they are stored in a memory.

Regarding claim 4, it is inherent that luminance information is included in the signal outputted from the automatic gain control circuit 107 and supplied to system control circuit 117 for determining the portion of the image to be used for exposure and zoom control.

Regarding claim 6, Tamura discloses that image pickup element 4 may be a CCD (column 4, line 8).

Method claims 13, 14, 15, and 17 correspond to apparatus claims 1, 2, 4, and 6, respectively and may be treated as described above.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Kyuma.

Tamura discloses an image pickup apparatus as described in the rejection of claims 1-4 above. In addition, Tamura's apparatus has a light-measuring circuit 112 that receives an image signal from the camera containing a luminance component and

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outputs a signal with the image plane divided into portions (column 12, lines 42-45). In order to do this, light-measuring circuit 112 also receives a gate signal from gate pulse generating part 117f and relates the two signals in order to determine exposure weighting (column 17, lines 28-34), and therefore acts as a comparator. Integrator 113 receives the output of light-measuring circuit 112 and generates a signal representative of this portion-divided signal (column 12, lines 61-65).

Tamura is silent with regard to using an analog-to-digital converter for receiving a signal from an integrator and outputting a signal useful for controlling exposure.

Kyuma discloses an image pickup device used to control exposure. In Figure 3, Gate 9 receives an image signal — inherently containing a luminance component — for extracting an image signal corresponding to one of a group of preselected areas, integrator 10 integrates the signal corresponding to the selected area, and analog-to-digital converter 11 converts the integrated signal useful to a system control microcomputer 25 (column 6, lines 12-21). Look-up tables 19a, 19b, and 19c contain exposure data used by system control microcomputer 25 (column 6, lines 42-50). The advantage of converting the analog image signal into a digital one is that it may be easily compared to data stored in a look-up table for manipulating the image. Therefore, it would have been obvious to have Tamura's camera contain an A/D converter for exposure control.

Method claim 16 corresponds to apparatus claim 5 and may be treated as described above.

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9. Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Suzuki.

Tamura discloses an image pickup apparatus as described in the rejection of claims 1-4 and 6 above.

Tamura is silent with regard to using an endoscope with his device.

Suzuki discloses an exposure control device for an endoscope that takes into account the position of a mask area when determining exposure values (column 7, lines 16-26). The mask area may be of variable shape, as shown in figures 2, 6(A), and 6(B).

The advantage of using an endoscope with an image pickup device having exposure control is that it allows a medical professional to clearly observe areas inside the human body, as is well-known in the art. Therefore, it would have been obvious to have the camera system of Tamura connected to an endoscope.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Suzuki and further in view of Kyuma.

Claim 11 may be treated like claim 5. However, Tamura is silent with regard to using an endoscope with his device.

Suzuki discloses an exposure control device for an endoscope that takes into account the position of a mask area when determining exposure values (column 7, lines 16-26). The mask area may be of variable shape, as shown in figures 2, 6(A), and 6(B).

The advantage of using an endoscope with an image pickup device having exposure control is that it allows a medical professional to clearly observe areas inside

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the human body, as is well-known in the art. Therefore, it would have been obvious to have the camera system of Tamura connected to an endoscope.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason T. Whipkey, whose telephone number is (703) 305-1819. The examiner can normally be reached Monday through Friday from 8 A.M. to 5:30 P.M. eastern daylight time, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber, can be reached on (703) 305-4929. The fax phone

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number for the organization where this application or proceeding is assigned are (703) 872-9314 for both regular communication and After Final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

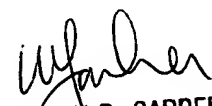
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or faxed to (703) 872-9314 for either formal or informal communications intended for entry. (For informal or draft communications, please label "**PROPOSED**" or "**DRAFT**".)

Hand-delivered responses should be brought to the sixth floor receptionist of Crystal Park II, 2121 Crystal Drive in Arlington, Virginia.

JTW
JTW

February 7, 2003


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600